

WHAT IS CLAIMED IS:

1. An integrated database system, comprising:
  - a plurality of database systems connected to one another by a network,
  - each of said plurality of database systems managing its own stored data independently of the other database systems and accessing the stored data in accordance with an access request; and
  - an integrated database unit connected to the network, wherein:
    - said integrated database unit includes:
      - a directory database which stores, as to each object stored in said plurality of database systems, corresponding information including directory information and a database system in which the object concerned is stored;
      - a directory control unit which acquires, by using said directory database, directory information corresponding to a target object of an accepted access request;
      - a database identifying unit which identifies, by using said directory database, the database system corresponding to said target object of the accepted access request; and
      - a database control unit which issues, on the basis of the acquired directory information, an access request to the database system having the target object of the accepted access request, wherein:
        - the database system includes a database server unit which accesses a database in accordance with the access request issued by said integrated database unit.
2. An integrated database system according to claim 1, wherein:
  - said directory database stores corresponding information between each of the objects

stored in any one of said plurality of database systems and a database system in which each of the objects are stored, a local data name of each of the objects, and a global object name which is a unique identifier in all of said plurality of database systems;

said directory control unit receives an access request which specifies a global object name of a target object of the access request, and identifies a database system and a local object name corresponding to the received global object name; and

said database control unit issues the identified database system with an access request which specifies the identified local object name, and accesses the target object of the access request.

3. An integrated database system according to claim 2, wherein:

a database server unit in each of said plurality of database systems manages an object by using local object names which are unique identifiers in the database system in which said database server unit is included, and receives from said integrated database unit a request to access the object managed by the database server unit, in accordance with a specified local object name.

4. An integrated database system according to claim 1, wherein said integrated database unit serves as at least one of said plurality of database systems.

5. An integrated database unit which integrates a plurality of database systems connected to one another by a network, each of said plurality of database systems managing its own stored data independently of the other database systems and

accessing the stored data in accordance with an access request, said integrated database unit being connected to the network, comprising:

a directory database which stores, as to each of the objects stored in said plurality of database systems, corresponding information including directory information of the object and a database system in which the object concerned is stored;

a directory control unit which acquires, by using said directory database, directory information corresponding to a target object of the accepted access request;

a database identifying unit which identifies, by using said directory database, the database system corresponding to said target object of the accepted access request; and

a database control unit which issues, on the basis of the acquired directory information, an access request to the database system having the target object of the accepted access request.

6. An integrated database unit according to claim 5, wherein:

said directory database stores correspondences between each of the objects stored in the plural database systems and the database system in which each of the objects is stored, a local object name of each of the objects, and a global object name which is an unique identifier in all of said plurality of database systems;

said directory control unit receives an access request which specifies a global object name of target object of the access request, and identifies a database system and a local object name corresponding to the received global object name; and

said database control unit issues the identified database system with an access request which specifies the identified local object name, and accesses the target object of

the access request.

7. A database access method for an integrated database system which includes a plurality of database systems connected to one another by a network, each of said plurality of database systems managing its own stored data independently of the other database systems and accessing the stored data in accordance with an access request, said database access method which accesses the data stored in said plurality of database systems, comprising the steps of:

storing in a directory database of an integrated database unit which is connected to the network, information as to each of the objects stored in said plurality of database systems, corresponding information including directory information of the object and a database system in which the object concerned is stored,

a<sup>1</sup> acquiring, by using the directory database, directory information corresponding to a target object of an accepted access request;

identifying, by using the directory database, the database system corresponding to said target object of an accepted access request;

issuing, on the basis of the acquired directory information, an access request to the database system having the target object of the accepted access request; and

accessing a database in the database system in accordance with the access request issued by said integrated database unit.

8. A database access method according to claim 7, further comprising the steps of:

storing in said directory database of said integrated database unit correspondences between each of the objects stored in the plural database systems and the database system in which each of the objects is stored, a local object name of each of the objects, and a global object name which is a unique identifier in all of said plurality of database systems,

receiving an access request which specifies a global object name of a target objects of the access request;

identifying a database system and a local object name corresponding to the received global object name; and

issuing the identified database system with an access request which specifies the identified local object name, and accessing said target object of the access request.

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9. A database access method according to claim 8, wherein each of the database systems receives from said integrated database unit a request to access objects managed by a database server unit, in accordance with a specified one of local object names which are managed by and are unique identifiers in the database system in which said database server unit is included.

10. A program product which causes a computer to execute access to data stored in a plurality of database systems, the computer comprising: a plurality of database systems connected to one another through a network, each of the plurality of database systems managing its own stored data independently of the other database systems and accessing the stored data in accordance with an access request; and an integrated database

unit connected to the network, wherein:

said program product further comprising:

a code which causes an integrated database unit connected to the network and including a directory database to acquire, by using said directory database, directory information corresponding to target objects of an accepted access request, said directory database storing, as to each of the objects stored in said plurality of database systems, corresponding information including the directory information of the object and a database system in which the object concerned is stored;

a code which causes said integrated database unit to identify, by using said directory database, a database system corresponding to a target object of an accepted access request;

a code which causes said integrated database unit to issue, on the basis of the acquired directory information, an access request to said database system having said target object of the accepted access request; and

a code which causes said database system to access a database in accordance with the access request issued by said integrated database unit.

11. A program product according to claim 10, further comprising:

a code which causes said integrated database unit to store, in said directory database, correspondences between each of the objects stored in said plurality of database systems and the database system in which each of the objects is stored, a local object name of each of the objects, and a global object name which is an unique identifier in all of said plurality of database systems,

a code which causes said integrated database unit to receive an access request which specifies a global object name of a target object of the access request;

a code which causes said integrated database unit to identify a database system and a local object name corresponding to the received global object name; and

a code which causes said integrated database unit to issue the identified database system with an access request which specifies the identified local object name, and accessing said target object of the access request.

12. A program product according to claim 11, further comprising:

a<sup>1</sup> code which causes each of said plurality of database systems to receive from said integrated database unit a request to access objects managed by a database server unit, in accordance with a specified one of local object names which are managed by and are unique identifiers in the database system in which the database server unit is included.

13. A program product according to claim 10, wherein the computer which constitutes said database systems and said integrated database unit has a readable storage medium in which said codes are held.

14. A program product according to claim 10, wherein said codes are stored through the network into the computer which constitutes said database systems and said integrated database unit.

15. A storage medium which stores a program which causes a computer to

execute access to data stored in a plurality of database systems, said computer constituting: said plurality of database systems connected to one another through a network, each of said plurality of database systems managing its own stored data independently of the other database systems and accessing the stored data in accordance with an access request; and an integrated database unit connected to the network, wherein:

said program further comprising:

a<sup>1</sup> a code which causes an integrated database unit connected to the network and including a directory database to acquire, by using the directory database, directory information corresponding to a target object of an accepted access request, said directory database storing, as to each of the objects stored in said plurality of database systems, a correspondence with the directory information of the object and a database system in which the object concerned is stored;

a code which causes said integrated database unit to identify, by using said directory database, a database system corresponding to a target object of an accepted access request;

a code which causes said integrated database unit to issue, on the basis of the acquired directory information, an access request to the database system having said target object of the accepted access request; and

a code which causes the database system to access a database in accordance with the access request issued by said integrated database unit.